

Rezoning Transportation Analysis

Petition Number: 2020-103

General Location Identifier: 21337101

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Revision Log:

Date	Description
08-23-2020	First Review
09-29-2020	Second Review
10-26-2020	Third Review
01-19-2021	Fourth Review
02-15-2021	Fifth Review

General Review Information

This site is located at the intersection of Providence Road (State-maintained, Major Thoroughfare Road) and Alexander Road (City-maintained, Minor Thoroughfare Road). The site is located in a Wedge and is outside of Route 4.

Active Projects Near the Site:

- No Projects near the site.

CDOT's review of this rezoning petition is intended to provide consistency with council adopted policies, plans, standards and guidelines including, but not limited to, the Transportation Action Plan (TAP), Vision Zero, Urban Street Design Guidelines (USDG), Center, Corridor and Wedges, Charlotte BIKES, Traffic Impact Study Guidelines and Charlotte WALKS. With a commitment to design complete streets, this review is to ensure that the City's transportation network supports current and future land uses and includes streets that provide safe and comfortable mobility for motorists, pedestrians, bicyclists, and transit users.

This document is primarily for communication to Planning Department staff as part of the overall City staff analysis of the rezoning petition and includes an overall summary of the case from a transportation perspective, information on trip generation, and resolved or outstanding site plan concerns. Additional advisory information about the driveway permit process is provided for information only.

Based on our review of the petition, we offer the following information for your consideration.

Transportation Summary

The site is located at the intersection of Providence Road, a Major Thoroughfare Road (State-maintained) and Alexander Road, a Minor Thoroughfare Road (City-maintained). CDOT and NCDOT's evaluation of this petition prioritizes safe site access to minimize conflicts between bicyclists, pedestrians and motorized vehicles. Additionally, CDOT referred to City Council-adopted plans, policies, the City's Driveway Manual and Sight Distance Policy, and the development standards for UR-2 Rezoning District in Sec. 9.407(4)(c) of the City Code of Ordinances to evaluate this petition.

In determining the curb-line for this site, CDOT received a deed survey that showed an existing public right-of-way 64.9 feet from the existing median. The UR-2 conditional rezoning petitions (approved between 2018-2019) along Providence Road have public right-of way established at 50' from the existing centerline. Upon consultation of NCDOT, the existing curb-line at approximately 29 feet from the median and the existing right-of-way of 64.9 feet will remain in its current location. The petitioner will coordinate with NCDOT for future right-of-way dedication for Providence Road widening as specified in a future study. The

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petitioner will construct an 8-foot planting strip and an 8-foot Multi-Use Path (MUP). The MUP will allow for bicyclists and pedestrians to travel separately from vehicles.

Site Access

The single site access for the proposed project will be from Providence Road, which will be limited to a right-in/right-out movement. CDOT and NCDOT agreed that access on Alexander Road was not appropriate as traffic turning left into the site would have limited sight distance and the queue for entering traffic may affect the intersection of Providence and Alexander. As determined by NCDOT, the petitioner will provide a 100' driveway stem at the access on Providence Road to allow for stacking and safe ingress to the site. The petitioner will install 'No Parking – Towing Enforced' sign in the driveway stem.

Trip Generation and U-Turn Movements

Since August 2020, CDOT has participated in multiple community meetings with the Planning Department to provide updates on traffic analysis. On October 15, 2020, a Transportation Technical Memorandum (TTM) was submitted by the petitioner to CDOT and NCDOT for review. The TTM included the review of bicycle and pedestrian accommodations, ingress/egress, and U-turn movements. As the site plan reduces the number of units, the safety mitigation measures included in the TTM still apply.

After the City Council Rezoning Meeting in March 2021, the petitioner submitted an updated site plan with a proposed number of residential units at 44 units. The trip generation is now 295 daily vehicle trips, with 21 AM peak vehicle trips and 28 PM peak vehicle trips. The site will now generate 17 vehicles entering the site during the PM peak hour. It is assumed no more than 10 of those will be making the southbound U-turn movement on Providence Road. The townhomes are now setback from the back of curb at 45 feet. On-site parking has been provided and a note has been added to the site plan that states on-site parking will be monitored and enforced by the HOA.

As of the date of this memo, the intersection of Providence Road and Alexander Road is not on the high-injury network (which includes all pedestrian, bicycle, serious injury, and fatal crashes) or high congestion list. The crash summary report for the Providence/Alexander Rd, intersection shows that from February 2016 to November 2020, there was 58 total crashes. During that four-year period, the crash numbers are considered minimal for Providence Road. With 10 vehicles distributed throughout the peak rush hour period, this rezoning is anticipated to have minor impact on the operations and safety of the intersection.

Trip Generation

Scenario	Land Use	Intensity	Trip Generation (vehicle trips/day)			Source
			Daily	AM Peak	PM Peak	
Existing Use	Single Family	2 units	20	1	2	Tax Record
Entitlement with Current Zoning	Single Family (R-3, 5.92 acres)	17 units	205	17	19	General Guidance from Planning
Previously Proposed	Townhomes	87 units	620	42	52	Site Plan: 06-11-20
Proposed Zoning	Townhomes	45 units	300	22	29	Site Plan: 02-09-21
Proposed Zoning	Townhomes	44 units	295	21	28	Site Plan: 03-22-21

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Outstanding Issues

Strikeout = Not an outstanding issue

1. **Curbline:** ~~Resolved: Within the Urban Residential Zoning District (Sec. 9.406), the curb lines are to be determined by the Charlotte Department of Transportation in conjunction with the Planning Department staff. The proposed zoning district has a setback measured from back of the existing or future curbline.~~
 - a. **Providence Road (NCDOT): RESOLVED: Revised Comment (02/15/2021):** ~~The existing public right-of-way is provided at 64.9 (per deed survey). A future curbline dimension as determined by a final feasibility study is not available at this time, due to the Providence Road Feasibility Study (FS-1810D) being suspended. The location of the curb and gutter for Providence Road will remain in its existing location. At a minimum, per the completion of the TTM (see Outstanding Issue 2) and further review of Planning Department staff, an easement may be required to accommodate pedestrian (i.e. 12' Multi-Use Path) and /or bicycle facilities. The location of curb and gutter may be required to be moved to allow for a wider thoroughfare – 100 feet from road centerline.~~
 - b. **Alexander Road (CDOT):** ~~The future location of curb and gutter is in its existing location.~~

~~With the addition of a right-turn lane on Providence Road, the site plan should show the curb and gutter labeled and dimensioned from the centerline for Providence Road.~~

2. **Traffic Study –** ~~Resolved: Revised Comment (10/26/2020): The petitioner submitted a TTM to CDOT staff on 10/15/20. NCDOT has received the TTM as well and their review is ongoing. The petitioner should revise the TTM to address analysis of transit, pedestrian, bicycle, and vehicular safety. The updated TTM should include feasibility of midblock crossing on Providence Road. The petitioner shall contact CDOT for the most recent crash data at the intersection of Providence and Alexander for the analysis, as the crash data referenced in the first TTM is inaccurate. Additionally, the petitioner shall update all trip generation tables with correct unit counts. The petitioner discussed reviewing safety concerns, as per meeting notes from a virtual community meeting held on September 1, 2020. The petitioner shall provide a Traffic Impact Study or a Transportation Technical Memo (TTM) with a safety focus, that will study the design and operation of the proposed driveway to Alexander Road as well as the design of the driveway to Providence Road. The TTM shall also include safety measures for consideration of access and movements at the intersection for mitigating trips generated by this petition. A Traffic Impact Study is not necessary for the complete review of this petition due to the site generating less than 2,500 daily trips. If during the permitting process the site generates more than 2,500 daily trips, a traffic study will be required.~~
3. **Resolved: (Revised Comment (01/19/2021): See Outstanding Issue 1.** ~~The petitioner will maintain the existing public right-of-way along Providence Road of 64.9 ft (per deed survey) from the Providence Road's centerline to the subject property line. The site plan should label and dimension the right-of-way from the road centerline. The deed survey reconciles any inconsistencies shown on Charlotte Explorer of 100' foot right-of-way. The petitioner should revise the site plan and conditional note(s) to commit to dedicate 50-foot right-of-way from the Providence Road centerline. The site plan should label and dimension the right-of-way from the road centerline.~~
4. **Resolved: (Revised Comment (01/19/2021):** ~~The proposed dwelling units per acre exceeds 12. Per Chapter 20 Subdivision ordinance, revise the site plan and conditional note(s) to commit to construct an 8-foot planting strip, and 8-foot sidewalk along Providence Road and Alexander Road. The wider sidewalk also meets the Charlotte WALKS Policy. The site plan should label and dimension both items from the back of curb and gutter and road centerline.~~
5. **Resolved:** ~~The petitioner should revise the site plan and conditional note(s) to accommodate a height check and possible replacement of guardrail on Providence Road for safety.~~

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6. ~~Resolved: (Revised Comment 02/15/21): While a feasibility study had been initiated for Providence Road/NC 16 under FS-1810D, the study has been suspended due to funding challenges. Add a site plan conditional note that states "The Petitioner will coordinate with NCDOT for future right-of-way dedication or reservation for Providence Road widening as determined under the future feasibility study if the feasibility study is completed before Petitioner has obtained permits". Providence Rd/NC 16 feasibility study has been suspended; unsure if ROW will be needed in the future for 6 lanes, a large intersection, etc. The abandonment needs to be deferred until the feasibility study is complete and it has been determined that future widening is unlikely.~~
7. ~~Resolved: The petitioner should revise the site plan conditional note "3. Access and Transportation, Section H" to add a note specifying dedication and fee simple conveyance of all rights of way to the City before the site's first building certificate of occupancy is issued. CDOT requests right of way set at 2' behind back of sidewalk where feasible.~~
8. ~~Resolved: The petitioner should revise the site plan conditional note "3. Access and Transportation, Section I" to add a note specifying all transportation improvements will be approved and constructed before the site's first building certificate of occupancy is issued. The petitioner may phase transportation improvements if said improvements and phasing are explicitly described in site plan notes.~~
9. ~~Resolved: Revised Comment per revised site plan (10/26/2020): The petition is requesting an Urban Residential — 2 (UR-2) Zoning District, which provides regulations on public and private street design for conditional plans. The petitioner shall revise the Alexander Road site plan to realign and redesign private street access to a one-way ingress only (refer to the CDOT LD checklist for City design requirements). Feasibility of a raised median on Alexander Road shall be considered. Petitioner will provide the ISD for the driveway on Alexander Road and the intersection of Providence Road and Alexander Road, both horizontal and vertical included to show distance meets CDOT's Sight Distance Policy and AASHTO's A Policy of Geometric Design of Highways and Streets.~~
10. ~~Resolved: New Comment per revised site plan (9/29/2020): The petitioner should revise the site plan and include conditional note(s) for a 50-ft driveway stem from Providence Road's public right-of-way to the first intersection, as per NCDOT.~~
11. ~~Resolved: New Comment per revised site plan (9/29/2020): Per the site conditional note '8. A.CATS', coordination of the bus location shall also be reviewed by NCDOT for input on the location along Providence Road. The bus waiting pad shall provide a safe pedestrian path to the intersection of Providence Road and Alexander Road to encourage crossing at an existing signalized intersection.~~
12. ~~Resolved: Revised Comment per revised site plan (Accela Site Plan Uploaded on 10/12/2020): Please update site conditional note 7.c. to include CDOT staff contact: "To attain a street and pedestrian lighting recommendation, the petitioner should coordinate with Anthony Mendez, CDOT. Please visit the following link: <https://charlottenc.gov/Transportation/Programs/Pages/StreetLighting.aspx>"~~
13. ~~Resolved: NEW COMMENT (per Accela updated Site Plan Uploaded on 01/12/21): Revise the site plan and conditional note(s) to commit to construct an 8-foot planting strip, and 8-foot sidewalk on Providence Road per Chapter 19 / Chapter 20. The site plan shall label and dimension both items from the back of curb and gutter and road centerline.~~
14. **Resolved** Sample format for comment that is resolved

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Advisory Information

The following are requirements of the developer that must be satisfied prior to driveway permit approval. We recommend that the petitioner reflect these on the rezoning plan as-appropriate.

1. The setback for this district is measured from the back of the existing or future curbline as determined by CDOT and Planning during the permitting process.
2. According to the City of Charlotte's Driveway Regulations, CDOT has the authority to regulate/approve all private street/driveway and public street connections to the right-of-way of a street under the regulatory jurisdiction of the City of Charlotte.
3. Adequate sight triangles must be reserved at the existing/proposed street entrance(s). Two 35' x 35' sight triangles (and two 10' x 70' sight triangles on North Carolina Department of Transportation on NCDOT maintained streets) are required for the entrance(s) to meet requirements. All proposed trees, berms, walls, fences, and/or identification signs must not interfere with sight distance at the entrance(s). Such items should be identified on the site plan.
4. The proposed driveway connection(s) to public streets will require a driveway permit(s) to be submitted to CDOT (and the North Carolina Department of Transportation on NCDOT maintained streets) for review and approval. The exact driveway location(s) and type/width of the driveway(s) will be determined by CDOT during the driveway permit process. The locations of the driveway(s) shown on the site plan are subject to change in order to align with driveway(s) on the opposite side of the street and comply with City Driveway Regulations and the City Tree Ordinance.
5. All proposed commercial driveway connections to a future public street will require a driveway permit to be submitted to CDOT for review and approval.
6. Any fence or wall constructed along or adjacent to any sidewalk or street right-of-way requires a certificate issued by CDOT.
7. A Right-of-Way Encroachment Agreement is required for the installation of any non-standard item(s) (irrigation systems, decorative concrete pavement, brick pavers, etc.) within a proposed/existing City maintained street right-of-way by a private individual, group, business, or homeowner's/business association. An encroachment agreement must be approved by CDOT prior to the construction/installation of the non-standard item(s). Contact CDOT for additional information concerning cost, submittal, and liability insurance coverage requirements.